



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D412-664-403
Job Sheet 185905



Part No: D412-664-403

Job Qty: 1 pcs

Part Name: 412 Stainless Steel Aft Crosstubes - High



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/6/18

Job Tracking No:

Due Date: 11/27/18

Created By: Jesse White

Type: Stock

Description:

Note: D412-664-443 REV.B/ IIN-D212-664 REV.J IPP REV:A 13.10.25 NEW ISSUE DD VERF:JLM IPP Rev.B
17.06.26 As per Dwg/Chg/PAR16-545 DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Crosstubes - Bend - 1	1 pcs		11/27/18	0.00	5.88	Crosstubes - Bend		GP/BB 19-05-15
127	QC 15	1 pcs		11/27/18	0.00	0.00	QC 15 - 12		
							QC 15 - 3		
							QC 15 - 38		
							QC 15 - 47		
							QC 15 - 49		
							QC 15 - 58		DAS MAY 16 2019 68
							QC 15 - 9		9-89
128	Crosstubes - 2 - B4B	1 pcs		11/27/18	0.00	2.78	Crosstubes - 1 - B4B		
							Crosstubes - 2 - B4B		GP/BB 19-05-17
							Crosstubes - 3 - B4B		
							Crosstubes - 4 - B4B		
							Crosstubes - 5 - B4B		
							Crosstubes - 6 - B4B		
130	Crosstubes - 3 - B4B	1 pcs		11/27/18	0.00	2.78	Crosstubes - 1 - B4B		
							Crosstubes - 2 - B4B		
							Crosstubes - 3 - B4B		DB/GP 5/5/2019
							Crosstubes - 4 - B4B		
							Crosstubes - 5 - B4B		
							Crosstubes - 6 - B4B		
140	QC 5	1 pcs		11/27/18	0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 38		
							QC 5 - 42		



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CANADA
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www.dartaerospace.com

Container No: S181733



Part: D412-664-403

Job No: 185905

Serial No/Batch: S181733

Revision: B/J

Inspector:

Exp Date:

Instructions: TC STC SH01-9 Issue 3, EASA STC SR01298NY 09/01/08, EASA ST

					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	
					QC 5 - 9	
					QC 5 - 50	
					QC 5 - 30	
174	Outsource - 2 - NDT per QSI038	1 pcs	11/27/18		SKY002-VC	3
176	Packaging 2-1 - Receive - B4B	1 pcs	11/27/18	0.00 0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	

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					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
178 QC 6	1 pcs	11/27/18	0.00 0.00		QC 6 - 38	
					QC 6 - 42	
					QC 6 - 9	
					QC 6 - 68	
					QC 6 - 61	
180 Spray Paint - 2 - B4B	1 pcs	11/27/18	0.00 2.70		Spray Paint - 1 - B4B	
					Spray Paint - 2 - B4B	
					Spray Paint - 3 - B4B	
					Spray Paint - 4 - B4B	
190 QC 14	1 pcs	11/27/18	0.00 0.00		QC 14 - 15	
					QC 14 - 2	
					QC 14 - 34	
					QC 14 - 38	
					QC 14 - 41	
					QC 14 - 51	
					QC 14 - 58	
					QC 14 - 59	
					QC 14 - 9	
					QC 14 - 68	
200 Crosstubes - 4 - B4B	1 pcs	11/27/18	0.00 2.78		Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	
					Crosstubes - 5 - B4B	
					Crosstubes - 6 - B4B	
210 QC 5	1 pcs	11/27/18	0.00 0.00		QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 38	
					QC 5 - 42	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	
					QC 5 - 9	
					QC 5 - 50	
					QC 5 - 30	
220 Packaging 1-1 - Pick Kit - B4B	1 pcs	11/27/18	0.00 0.00		Packaging 1 - 1 - B4B	
					Packaging 1 - 2 - B4B	
					Packaging 1 - 3 - B4B	
					Packaging 1 - 4 - B4B	
					Packaging 1 - 5 - B4B	
					Packaging 1 - 6 - B4B	
					Packaging 1 - 7 - B4B	

DAS
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JUN 10 2019
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				Packaging 1 - 8 - B4B					
				Packaging 1 - 9 - B4B					
				Packaging 1 - 10 - B4B					
				Packaging 1 - 11 - B4B					
				Packaging 1 - 12 - B4B					
				Packaging 1 - 13 - B4B					
				Packaging 1 - 14 - B4B					
				Packaging 1 - 15 - B4B					
				Packaging 1 - 16 - B4B					
				Packaging 1 - 17 - B4B					
				Packaging 1 - 18 - B4B					
				Packaging 1 - 19 - B4B					
				Packaging 1 - 20 - B4B					
				Packaging 1 - 21 - B4B					
				Packaging 1 - 22 - B4B					
				Packaging 1 - 23 - B4B	JUL 03 2019				
				Packaging 1 - 24 - B4B					
				Packaging 1 - 25 - B4B					
				Packaging 1 - 26 - B4B					
				Packaging 1 - 27 - B4B					
				Packaging 1 - 28 - B4B					
				Packaging 1 - 29 - B4B					
				Packaging 1 - 30 - B4B					
				Packaging 1 - 31 - B4B					
				Packaging 1 - 32 - B4B					
				Packaging 1 - 33 - B4B					
				Packaging 1 - 34 - B4B					
				Packaging 1 - 35 - B4B					
				Packaging 1 - 36 - B4B					
				230 QC 4	1 pcs	11/27/18	0.00 0.00	QC 4 - 26	
								QC 4 - 28	
								QC 4 - 38	
								QC 4 - 42	
								QC 4 - 58	
								QC 4 - 6	
								QC 4 - 69	
QC 4 - 9									
					Plex 1/28/19 4:10 PM Dart.Hadley.Shannon				

				QC 4 - 46	
240 Packaging 3-1 - Stock - B4B	1 pcs	11/27/18	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	

245 DC - 1 - B4B

1
pcs

11/27/18

0.00 0.00

DC - 1 - B4B

DC - 2 - B4B

250 QC 21 - FG

1
pcs

11/27/18

0.00 0.00

QC 21 - FG - 21

QC 21 - FG - 70

Part Op 110 - (CNC Alpha 160 Bender) Bend tube as per Dwg D412-664-443 using CNC bender program D412-664-443 ****USE
 Descriptions: (4) DT9824 SHIM BLOC TO CHECK STRAIGHTNESS****

127 - (QC15- Crosstube Dimensional Check) ***MARK CUT LINES***

128 - (Crosstubes) CUT TUBE AT HEIGHT ON FAI SHEET VERT HEIGHT _____ BY QC 15 LEVEL INSPECTOR
 VERT TWIST _____ BY QC15 LEVEL INSPECTOR _____

130 - (Crosstubes) 1- Drill Tube as per Dwg D412-664-443 Using DT8550/8551 Drill Jigs, Set-up drill table as per QSI
 010 2 -Deburr 3- Engrave Part # and Batch # as per Dwg D412-664-443 4-Remove all marks from tube within limits of
 D412-664-443 DWG.

140 - (QC5- Inspect part completeness to step on W/O)

176 - (Receive & Inspect for Damage & Mat'l Certs)

178 - (QC6- All purchased or subcontracted products)

180 - (Spray Paint / NDT Room) ***USE AXALTA 230S PRE-TREATMENT AS PER QSI005*** AXALTA

BATCH: 138021 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** **VERIFY BY _____

BATCH # TO MATCH W/O _____ **VERIFY BY _____ PART # TO MATCH

W/O _____ ***MASK SCRIBE B# & P# AND VERIFY*** 1-Prime inside & outside cross tube as per QSI
 005 4.2 BATCH: 5154137 2- Apply matte clear coat to underside of cross tube per QSI005 4.2 BATCH:

5151467 3- MASK UNDERSIDE OF CROSSTUBE AS SHOWN ON DWG BEFORE PAINTING 4 -Paint Outside
 of Tube as per Dart QSI 005 4.2 BATCH: 5151467 5-Remove masking

190 - (QC14- Inspect Spray Paint)

200 - (Crosstubes) 1- *****LAY DOWN CORSTUBE ON TABLE AND PUT DT10302 PINS IN SADDLE HOLE FACING
 UP, USE HOLE IN TAPE MESURE TO PUT IN PINS FOR LOCATING CENTER OF CROSSTUBE. ***** Install center
 support using scotch-weld DP460 per QSI 015, as per DWG. note 12. Install supports clamps as per Dwg D412-644-443. .
 ENSURE CLAMPS ARE ON TOP OF CROSSTUBE SUPPORT Torque clamps on support to 80-100 IN-LBS AS
 PER DWG. A/R scotch-weld DP460 BATCH #: 5152077 EXP DATE: 20/8 2- **IF NOT ALREADY
 PRESENT ON CHAFFING SHEILD.** Apply a thin coat of proseal 890 per QSI 015 on inside concave surface of chafing
 shield and let cure per manufacturer's instructions. Install prosealed chafing shield onto crosstube by applying a thin coat
 of proseal 890 onto crosstube. Be sure to eliminate any air gaps. Install and torque clamps on chafing shield to 40-50 IN-
 LBS AS PER DWG. A/R Proseal 890 Batch: 5176610 EXP DATE: 19/10 AFTER FINISH CURE TIME
 24H START CURE TIME: 19-6-28 FINISH CURE TIME: 19-6-29 PRIOR TO PACKAGING RE-
 CHECK TORQUE ON CLAMPS AFTER CURED FOR 24H.

210 - (QC5- Inspect part completeness to step on W/O) PRIOR TO PACKAGING RE-CHECK TORQUE ON CLAMPS
 AFTER CURED FOR 24H.

220 - (Pick Kit)

230 - (QC4- 100% Inspect kits for completeness)

240 - Identify and pack for shipping as per PPPD412-664-443 Location: _____ PPP Rev: _____

245 - (Document Control) Photocopy bluefile & type labels per PPPD412-664-403 CHG002

250 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D412-664-443TRN	Crosstube Turning Detail	1 Ea (1 ea)	110-Crosstubes - Bend - 1	<u>5127049</u>
D4910-1	Chaffing Shield	2 pcs (2 ea)	200-Crosstubes - 4 - B4B	
MS21920-26	Clamp	4 Ea (4 ea)	200-Crosstubes - 4 - B4B	
D5380-1	Support	1 pcs (1 ea)	200-Crosstubes - 4 - B4B	
D5380-3	Support Base	1 pcs (1 ea)	200-Crosstubes - 4 - B4B	
NAS1805-4P	Nut	8 pcs (8 ea)	200-Crosstubes - 4 - B4B	
NAS6704-21	Bolt	8 pcs (8 ea)	200-Crosstubes - 4 - B4B	
AN6-40A	3/8-24 Bolt X 3" Long	4 Ea (4 ea)	220-Packaging 1-1 - Pick Kit - B4B	<u>5171903</u>
AN6-41A	Bolt	2 Ea (2 ea)	220-Packaging 1-1 - Pick Kit - B4B	<u>5149318</u>
MS21042L6	Nut	6 Ea (6 ea)	220-Packaging 1-1 - Pick Kit - B4B	<u>5182056</u>
NAS1149D0663J	Washer	18 Ea (18 ea)	220-Packaging 1-1 - Pick Kit - B4B	<u>5133105</u>

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
110-Crosstubes - Bend - 1	D412-664-443TRN	1	6	0
200-Crosstubes - 4 - B4B	D4910-1	② 5049624	13	0
	D5380-1	① 5147534	0	0
	D5380-3	① 5147800	10	0
	MS21920-26	④ 5048911	33	0
	NAS1805-4P	⑧ 5050056	103	0
	NAS6704-21	⑧ 5050058	120	0
220-Packaging 1-1 - Pick Kit - B4B	AN6-40A	4	112	0
	AN6-41A	2	44	0
	MS21042L6	6	252	0
	NAS1149D0663J	18	1,012	0
Part Specifications				
Specifications could not be found.				

Plex 1/28/19 4:10 PM Dart.Hadley.Shannon



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Canada

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D412-664-403
Job Sheet 185905



Part No: D412-664-403

Job Qty: 1 ea

Part Name: 412 Stainless Steel Aft Crosstubes - High



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/6/18

Job Tracking No:

Due Date: 11/27/18

Created By: Jesse White

Type: Stock

Description:

Note: D412-664-443 REV.B/ IIN-D212-664 REV.J IPP REV:A 13.10.25 NEW ISSUE DD VERF:JLM IPP Rev.B
17.06.26 As per Dwg/Chg/PAR16-545 DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		11/27/18	0.00	0.00	Start Up Crosstubes-2		
110	CNC Bend Crosstubes	1 pcs		11/27/18	0.00	5.88	CNC Bend Crosstube		
127	QC	1 pcs		11/27/18	0.00	0.00	QC15		
128	Crosstubes	1 pcs		11/27/18	0.00	2.78	Crosstubes-2		
130	Crosstubes	1 pcs		11/27/18	0.00	2.78	Crosstubes-2		
140	QC	1 pcs		11/27/18	0.00	0.00	QC6		
174	Outsource	1 pcs		11/27/18			SKY002-VC	3	
176	Packaging	1 pcs		11/27/18	0.00	0.00	Packaging2		
178	QC	1 pcs		11/27/18	0.00	0.00	QC5		
180	SprayPaint	1 pcs		11/27/18	0.00	2.70	Spray Paint		
190	QC	1 pcs		11/27/18	0.00	0.00	QC14		
200	Crosstubes	1 pcs		11/27/18	0.00	2.78	Crosstubes-2		
210	QC	1 pcs		11/27/18	0.00	0.00	QC5		
220	Packaging	1 pcs		11/27/18	0.00	0.00	Packaging1-4		
230	QC	1 pcs		11/27/18	0.00	0.00	QC4		
240	Packaging	1 pcs		11/27/18	0.00	0.00	Packaging3-2		
245	DC	1 pcs		11/27/18	0.00	0.00	DC		
250	QC21-FG	1 Ea		11/27/18	0.00	0.00	QC21		

Part Op 110 - Bend tube as per Dwg D412-664-443 using CNC bender program D412-664-443 *****USE (4) DT9824 SHIM BLOC
 Descriptions: TO CHECK STRAIGHTNESS*****

127 - ***MARK CUT LINES***

128 - CUT TUBE AT HEIGHT ON FAI SHEET VERF HEIGHT _____ BY QC 15 LEVEL INSPECTOR _____
 VERF TWIST 0.353 BY QC15 LEVEL INSPECTOR _____

130 - 1- Drill Tube as per Dwg D412-664-443 Using DT8550/8551 Drill Jigs, Set-up drill table as per QSI 010 2 -Deburr 3-
 Engrave Part # and Batch # as per Dwg D412-664-443 4-Remove all marks from tube within limits of D412-664-443
 DWG.

180 - ***USE AXALTA 230S PRE-TREATMENT AS PER QSI005*** AXALTA BATCH: _____ *** WEAR LATEX
 GLOVES WHEN HANDLING CROSSTUBE*** **VERIFY BY _____ BATCH # TO MATCH W/O
 ***VERIFY BY _____ PART # TO MATCH W/O ***MASK SCRIBE
 B# & P# AND VERIFY*** 1-Prime inside & outside cross tube as per QSI 005 4.2 BATCH: _____ 2- Apply matte
 clear coat to underside of cross tube per QSI005 4.2 BATCH: _____ 3- MASK UNDERSIDE OF
 CROSSTUBE AS SHONE ON DWG BEFORE PAINTING 4 -Paint Outside of Tube as per Dart QSI 005 4.2 BATCH:
 _____ 5-Remove masking

200 - 1- *****LAY DOWN CORSTUBE ON TABLE AND PUT DT10302 PINS IN SADDLE HOLE FACING UP, USE HOLE
 IN TAPE MESURE TO PUT IN PINS FOR LOCATING CENTER OF CROSSTUBE. ***** Install center support using
 scoth-weld DP460 per QSI 015, as per DWG. note 12. Install supports clamps as per Dwg D412-644-443. ***ENSURE
 CLAMPS ARE ON TOP OF CROSSTUBE SUPPORT*** Torque clamps on support to 80-100 IN-LBS AS PER DWG. A/R
 scoth-weld DP460 BATCH #: _____ EXP DATE: _____ 2- **IF NOT ALREADY PRESENT ON
 CHAFFING SHEILD.** Apply a thin coat of proseal 890 per QSI 015 on inside concave surface of chafing shield and let
 cure per manufacturer's instructions. Install prosealed chafing shield onto crosstube by applying a thin coat of proseal 890
 onto crosstube. Be sure to eliminate any air gaps. Install and torque clamps on chafing shield to 40-50 IN-LBS AS PER
 DWG. A/R Proseal 890 Batch: _____ EXP DATE: _____ AFTER FINISH CURE TIME 24H START
 CURE TIME: _____ FINISH CURE TIME: _____ PRIOR TO PACKAGING RE-CHECK TORQUE
 ON CLAMPS AFTER CURED FOR 24H.

210 - PRIOR TO PACKAGING RE-CHECK TORQUE ON CLAMPS AFTER CURED FOR 24H.

240 - Identify and pack for shipping as per PPPD412-664-443 Location: _____ PPP Rev: _____

245 - Photocopy bluefile & type labels per PPPD412-664-403 CHG002

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D412-664-443TRN	Crosstube Turning Detail	1 Ea (1 ea)	90-Start up Operation	
D4910-1	Chaffing Shield	2 Ea (2 ea)	200-Crosstubes	
MS21920-26	Clamp	4 Ea (4 ea)	200-Crosstubes	
D5380-1	Support	1 Ea (1 ea)	200-Crosstubes	
D5380-3	Support Base	1 Ea (1 ea)	200-Crosstubes	
NAS1805-4P	Nut	8 pcs (8 ea)	200-Crosstubes	
NAS6704-21	Bolt	8 pcs (8 ea)	200-Crosstubes	
AN6-40A	3/8-24 Bolt X 3" Long	4 Ea (4 ea)	220-Packaging	
AN6-41A	Bolt	2 Ea (2 ea)	220-Packaging	
MS21042L6	Nut	6 Ea (6 ea)	220-Packaging	
NAS1149D0663J	Washer	18 Ea (18 ea)	220-Packaging	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D412-664-443TRN	1	0	0
200-Crosstubes	D4910-1	2	17	0
	D5380-1	1	0	0
	D5380-3	1	2	0
	MS21920-26	4	46	0
	NAS1805-4P	8	119	0
	NAS6704-21	8	136	0
220-Packaging	AN6-40A	4	102	0
	AN6-41A	2	47	0
	MS21042L6	6	326	0
	NAS1149D0663J	18	1,035	0

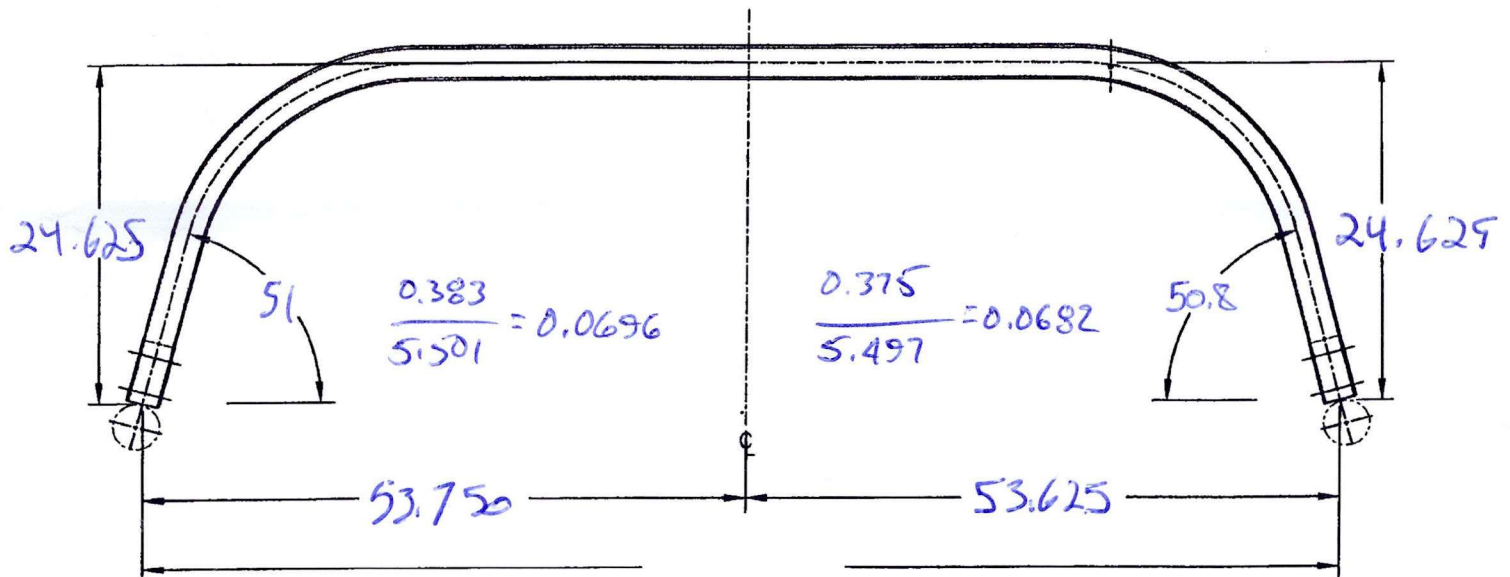
Part Specifications

Specifications could not be found.

Plex 11/6/18 12:45 PM dart.white.jesse

DART AEROSPACE LTD	Work Order:	
Description: Crosstube High Aft (412)	Part Number:	D412-664-403
Inspection Dwg: D412-664-443 Rev: A		Page 1 of 1

Required Dimension	Min	Max
Height	24.12	24.62
1/2 Span	53.56	53.82
Angle	49°	52°
Total Span	107.12	107.64
Bending Passes	8	--
Crushing	--	7%



$$\frac{2.559}{2.942}$$

	Side A	Side B
Bending Passes		
Crushing	7.0%	6.8%
Comments		

$$\frac{2.561}{2.936}$$

QC15 Inspection	DAS
Date	68
	MAY 4 2019

Rev	Date	Change	Revised by	Approved
A	14.07.08	New Issue	KJ	UP

Item	Qty	Part Number	Description
	443		
1	X	D412-664-443	CROSSTUBE ASSEMBLY (412 HI AFT)
2	1	D6020-132	CROSSTUBE MATERIAL
3	2	D4910-1	CHAFING SHIELD
4	1	D5380-1	SUPPORT
5	1	D5380-3	SUPPORT BASE
6	4	MS21920-26	CLAMP
7	8	NAS1805-4P	NUT
8	8	NAS6704-21	BOLT
9	A/R	SCOTCH-WELD DP460	EPOXY ADHESIVE, 3M SCOTCH-WELD
10	A/R	PROSEAL 890 OR 1422	SEALANT

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6020-132
FINISHED LENGTH = 130.10±0.060 (BEFORE BENDING/TRIMMING)
- 2) FINISH: PREPARE TUBE PER QSI 005 SECTION 4.1.4
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
APPLY MATTE CLEAR COAT TO UNDERSIDE OF CROSSTUBE PER DART QSI 005 4.2
MASK UNDERSIDE OF CROSSTUBE AS SHOWN (ZN C6-2, HATCHED AREA)
PAINT OUTSIDE PER DART QSI 005 4.2
AFTER PAINTING, REMOVE MASKING
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART P/N 'D412-664-443' AND B/N ON INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 87.8 lb FINISHED WEIGHT
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

BENDING

- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 7% (BASED ON O.D.) IN LOWER HALF OF R35 BEND AND 6% (BASED ON O.D.) ON REMAINING TUBE.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038. TO BE PERFORMED AFTER FINAL POST-BEND GRINDING. ANY ADDITIONAL GRINDING REQUIRES ANOTHER LPI INSPECTION.

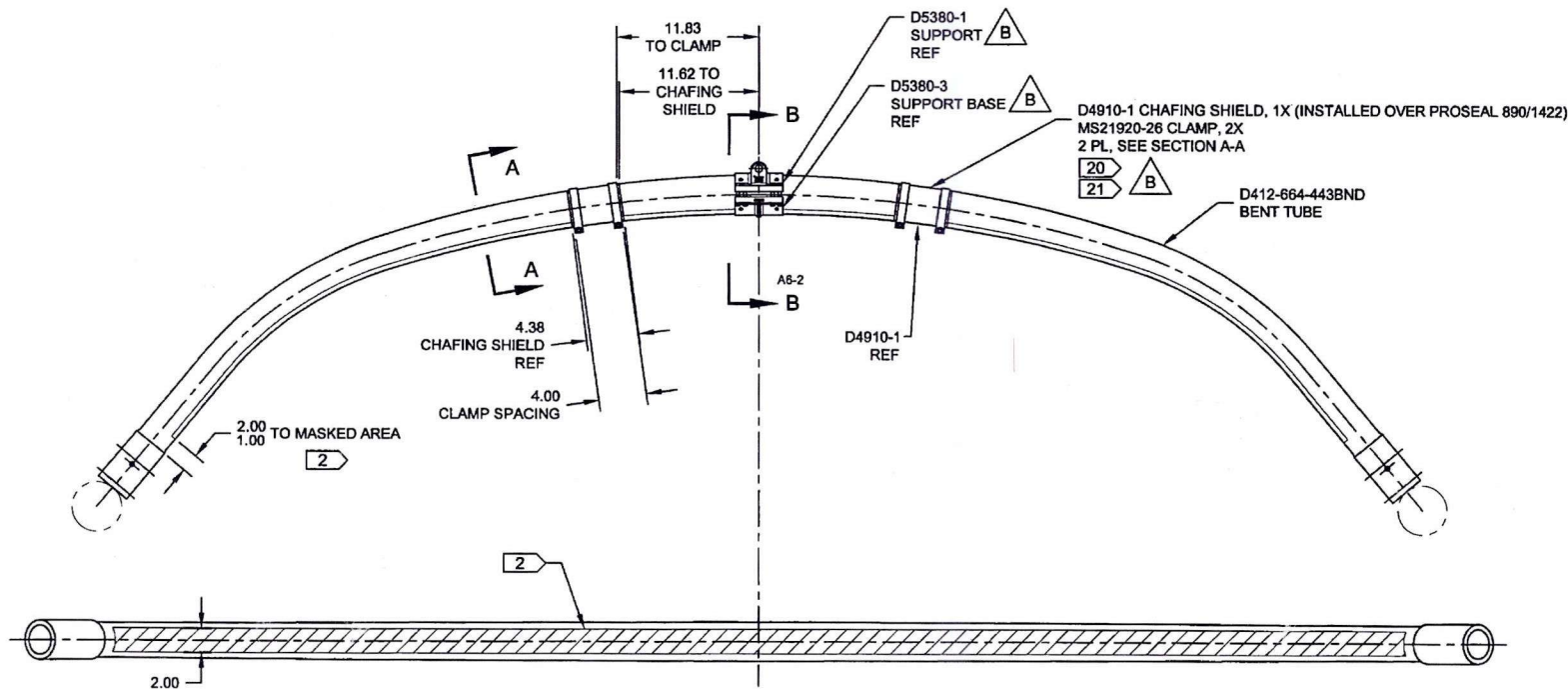
ASSEMBLY

- 12) LOCATE THE D5380-1/3 SUPPORTS ONTO THE CROSSTUBE AS SHOWN IN THE ASSEMBLY DETAIL.
- 13) ABRASE THE MATING SURFACES OF THE CROSSTUBE AND D5380-1/3 SUPPORT HALVES WITH 180-GRIT SANDPAPER. SATURATE A CLEAN CLOTH WITH MEK, 4105S WASH'N'WIPE DEGREASER OR EQUIVALENT AND WIPE CLEAN UNTIL THERE IS NO RESIDUE.
- 14) APPLY A 0.04" TO 0.07" THICK LAYER OF 3M DP460 ADHESIVE ONTO THE CONCAVE SURFACE OF THE D5380-1 SUPPORT AND THE D5380-3 SUPPORT BASE.
- 15) INSTALL D5380-1 SUPPORT ONTO THE CROSSTUBE AS SHOWN IN THE ASSEMBLY DETAIL AND INSTALL QTY (2) NAS6704-21 BOLTS INTO OPPOSING CORNERS OF THE D5380-1 SUPPORT. ALIGN THE BOLTS WITH THE HOLES ON D5380-3 SUPPORT BASE AND INSTALL ONTO THE CROSSTUBE.
- 16) INSTALL THE REMAINING QTY (6) NAS6704-21 BOLTS AND QTY (8) NAS1805-4P NUTS, THEN EVENLY TORQUE THE NUTS IN A CRISS-CROSS PATTERN TO 60-70 IN-LBS. ENSURE A MINIMUM OF 1.5 THREADS ARE IN SAFETY.
- 17) WIPE OFF EXCESS ADHESIVE USING A CLEAN CLOTH SATURATED WITH MEK, 4105S WASH'N'WIPE DEGREASER OR EQUIVALENT
- 18) ALLOW DP460 ADHESIVE TO CURE FOR 24 HOURS.
- 19) FILLET SEAL THE EDGES OF THE D5380-1/3 SUPPORT HALVES WITH PROSEAL PR1422 B1/2 OR PR890 B1/2 ALLOW PROSEAL TO CURE FOR 24 HOURS.
- 20) IF NOT ALREADY PRESENT ON D4910-1 CHAFING SHIELD, APPLY A 0.015" TO 0.020" THICK COAT OF PROSEAL 890/1422 ON INSIDE CONCAVE SURFACE OF D4910-1 CHAFING SHIELD AND LET CURE PER MANUFACTURER'S INSTRUCTIONS.
- 21) RECOAT THE D4910-1 CHAFING SHIELD WITH 0.015"-0.020" OF PROSEAL 890/1422 AND IMMEDIATELY INSTALL ONTO THE CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS. ENSURE THE D4910-1 CHAFING SHIELDS ARE WRAPPED TIGHTLY.
- 22) TORQUE CLAMPS ON D4910-1 CHAFING SHIELD 40 TO 50 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON MS21920-26 CLAMPS AFTER ADHESIVES HAVE CURED FOR 24 HOURS.

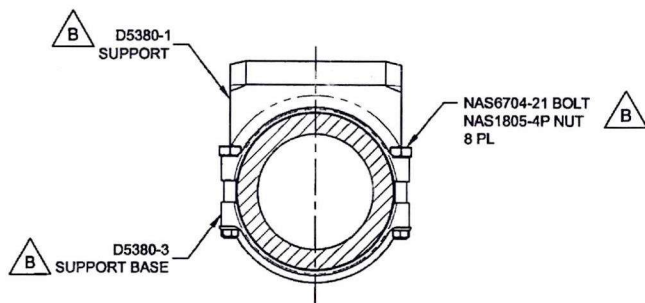
RELEASED

2017 JUN 21
ECN17-593

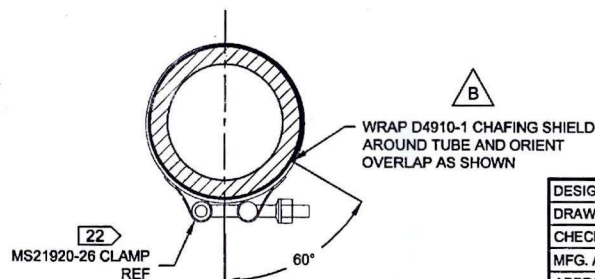
B	ADD ITEMS 4, 5, 7, AND 8. DELETED ITEMS D4909-1, MS21920-28 & D3595-063-530. NOTE 2 UPDATED FOR TUBE FINISH. ALL ASSEMBLY NOTES REWRITTEN. SHEET 2 SECTION A-A ANGLE DIM ADDED FOR CHAFING SHIELD INSTALLATION. ASSEMBLY DETAIL AND SECTION B-B UPDATED FOR INSTALLATION OF D5380-1/3.	AJS	16.11.03
A	NEW ISSUE	CP	14.04.01
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D412-664-443	SHEET 1 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CROSSTUBE ASSY (412 HI AFT)	NTS
DATE	16.11.03	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



SYM
D412-664-443
ASSEMBLY DETAIL



SECTION B-B
SCALE 4X

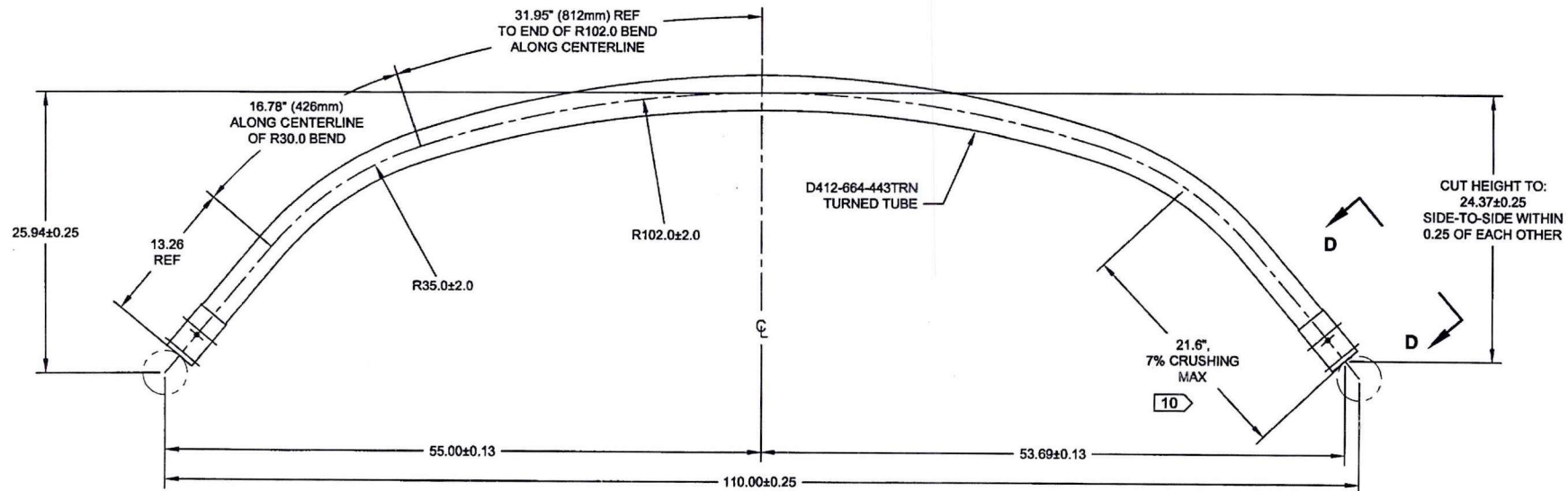


SECTION A-A
SCALE 4X

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2017 JUN 21 *gr*

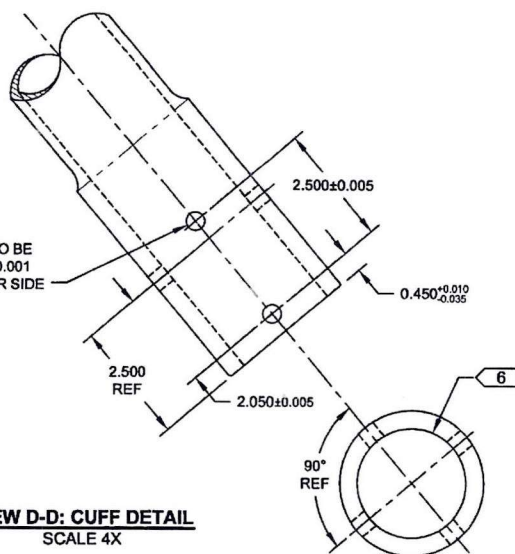
DESIGN	CP	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D412-664-443	SHEET 2 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CROSSTUBE ASSY (412 HI AFT)	NTS
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D412-664-443BND
BENDING DETAIL

10

Ø0.386^{+0.005}_{-0.000} HOLE TO BE
ALIGNED WITHIN ±0.001
OF HOLE ON OTHER SIDE
OF CUFF
2 PL

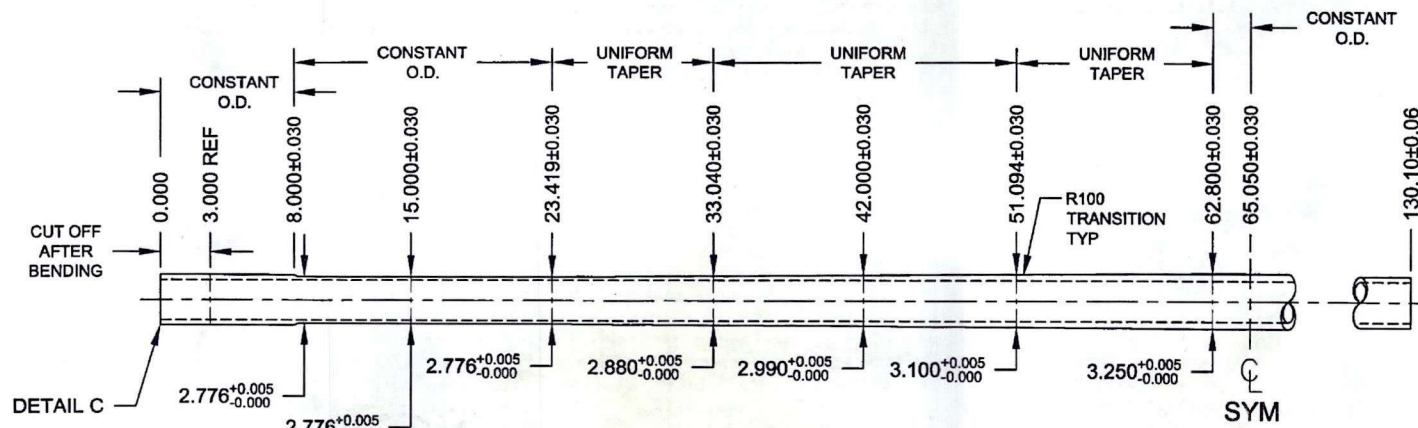


VIEW D-D: CUFF DETAIL
SCALE 4X

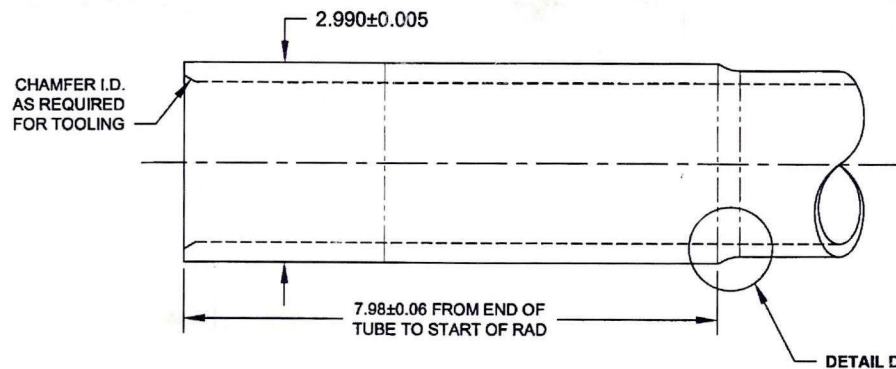
6

RELEASED
2017 JUN 21

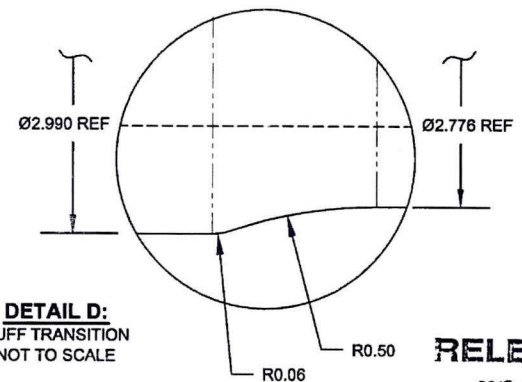
DESIGN	CP	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D412-664-443	SHEET 3 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CROSSTUBE ASSY (412 HI AFT)	NTS
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D412-664-443TRN
TURNING DETAIL



DETAIL C:
CUFF TRANSITION
SCALE 4X



RELEASED
2017 JUN 21

DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D412-664-443	SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CROSSTUBE ASSEMBLY (412 HI AFT)	NTS
DATE	16.11.03	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043652



Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

Attention: Jenne, Heather

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043652
PO Date: 6/6/19
Due Date: 6/6/19
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Guerin, Kimberley
kguerin@dartaero.com

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	191954	D5610-1TRN	EC130 Aft Crosstube Turning Detail : Various STC's ISSUE P/O: _____	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
2	185902	D412-664-403	412 Stainless Steel Aft Crosstubes - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
	185904			Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
	185905			Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
Sub Total:							3	0	3		\$358.50

3	185904	D412-664-403	412 Stainless Steel Aft Crosstubes - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17	Cancelled	-	6/6/19	0 pcs	0 pcs	0 pcs	\$119.50/pcs	\$0.00
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB043652



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	185905	D412-664-403	412 Stainless Steel Aft Crosstubes - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17	Cancelled	-	6/6/19	0 pcs	0 pcs	0 pcs	\$119.50/pcs	\$0.00
5	195364	D212-664-201	Aft Crosstube - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17 ***WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE.*** Issue P/O: _____ LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
	195366			Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
Sub Total:							2	0	2		\$239.00
6	195366	D212-664-201	Aft Crosstube - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17 ***WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE.*** Issue P/O: _____ LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2	Cancelled	-	6/6/19	0 pcs	0 pcs	0 pcs	\$119.50/pcs	\$0.00



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Hawkesbury, ON
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PURCHASE ORDER POHB043652



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
7	195393	D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
	195394			Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
Sub Total:							2	0	2		\$239.00

8		D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Cancelled	-	6/6/19	0 pcs	0 pcs	0 pcs	\$119.50/pcs	\$0.00
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043652



Items												
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price	
9	195391	D206-667-107BL	Fwd Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50	
	195392			Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50	
Sub Total:							2	0	2		\$239.00	

Grand Total: \$1,195.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 6/7/19 3:55 PM dart.belanger.natasha



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043652



Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

Attention: Jenne, Heather

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043652

PO Date: 6/6/19

Due Date: 6/6/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	191954	D5610-1TRN	EC130 Aft Crosstube Turning Detail : Various STC's ISSUE P/O:	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
2	185902	D412-664-403	412 Stainless Steel Aft Crosstubes - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
3	185904	D412-664-403	412 Stainless Steel Aft Crosstubes - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
4	185905	D412-664-403	412 Stainless Steel Aft Crosstubes - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50



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PURCHASE ORDER

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Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	195364	D212-664-201	Aft Crosstube - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA- 316/2015 15/06/17 ***WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE.*** Issue P/O: _____ LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
6	195366	D212-664-201	Aft Crosstube - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA- 316/2015 15/06/17 ***WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE.*** Issue P/O: _____ LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
7	195393	D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50



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1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER

POHB043652



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
8	195394	D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
9	195391	D206-667-107BL	Fwd Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
10	195392	D206-667-107BL	Fwd Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	6/6/19	1 pcs	0 pcs	1 pcs	\$119.50/pcs	\$119.50
Grand Total:											\$1,195.00



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043652



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

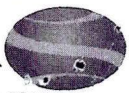
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 6/7/19 1:49 PM Dart.Guerin.Kimberley

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO40659	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: POHB043652 ✓
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT ON 10 CROSSTUBES AS PER POHB043652

2 FWD CROSSTUBES , P/N# D206-667-107BL , J/S# 195391 , 195392

2 AFT CROSSTUBES , P/N# D206-667-207BL , J/S# 195393 , 195394

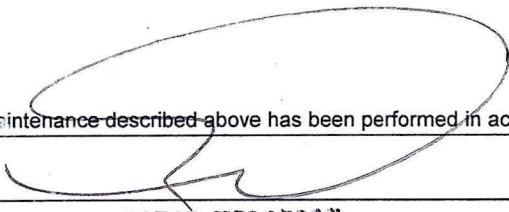
2 AFT CROSSTUBES , P/N# D212-664-201 , J/S# 195364 , 195366

3 AFT CROSSTUBES (412 STAINLESS STEEL) , P/N# D412-664-403 , J/S# 185902 , 185904 , 185905

1 EC130 AFT CROSSTUBE , P/N# D5610-1TRN , J/S# 191954

Action Taken:						Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417M-16						JUN 06 2019	 DOT-APP 20 53-89
NO CRACK OR CORROSION FOUND							
PEN. ZL-56, MPO13600, CLEANER SKC-S MPO13923 , DEV. MPO11715 , UV LIGHT M-20142							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
Name: RAFIK MELIKIAN	 DOT-APP 20 53-89	JUN 06 2019

PAGE 1 OF 1

Description: CROSSTUBE INSTALLATION, HEAVY DUTY, HIGH AFT

D412-664-403/185905/5181733